

National Herbarium (CAL). Thus the exact locality of its occurrence has not yet been clearly indicated in the floras by J. D. Hooker (1883) and J. S. Gamble (1923); also the description on the fruits of this species is not available in literature since there was no collection with fruits.

Surprisingly the occurrence of this species was recently noted by the senior author on the northern slopes of Palni hills during a plant exploration trip, and collected with flowers during October 1977 and with fruits during February, 1978. Thus the rare and interesting species has been rediscovered after a lapse of over 100 years. Since the fruits of this species are not known so far, a short description of them with figures has been provided.

Marsdenia brunoniana Wt. & Arn. in Wt. Contr. 40. 1834; Wt. Ic. t. 356. 1840; Dcne. in DC. Prodr. 8: 614. 1844; Hooker, Fl. Brit. India 4: 36. 1883; Gamble, Fl. Pres. Madras 846. 1923 & 2: 594. (rep. ed.) 1957. Follicles 8.9 × 3.5 cm, green, ripe pale yellow,

two or solitary, ovatelanceolate, 4-angled, angles sharply winged, smooth, glabrous, obtuse, slightly indented at apex, truncate at base; seeds 1.5 × 0.7—1 cm, many, black, white-margined, ovate-elliptic, flattened, sub-obtuse at apex, with white silky coma up to 4.5 cm long. (Figs. 1-3).

Field note: This climbing shrub grows over small trees in scrub jungles at an altitude of ± 700 m. Fruits are quite distinct in having 4-winged angles.

Specimens examined: INDIA. TAMIL NADU: Madurai Dt., Poomparai-Vilpatti R. F., 18-10-1977, Chandrabose 51367; Palani-Kodai-kanal, 17-2-1978, Chandrabose 53371.

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35. MORE RECORDS OF ENTOMOGENOUS FUNGI FROM PRESERVED DRAGONFLY COLLECTIONS

INTRODUCTION

Several reports of fungal infestation of insects have been brought out by many workers. In India, however, comparatively much less work has been carried out on this phase of study. The most noteworthy and informative reports on *fungi entomogeni* have been produced by Kamat *et al.* (1952), Jagtap

(1958) and Narasimhan (1970) who have reported fungi from various groups of insects, such as, Aphids, Termites, Mosquitoes, House flies, Grasshoppers, Butterflies, Honey bees, Cockroaches, Ants, Scale insects, Beetles etc. A review of the above literature clearly indicates that no attention has so far been given on the dragonflies being infested by fungi, and the sole exception are the papers

of Pacioni (1977) and Tyagi and Vijay Veer (1978). The latter workers, in their general study of the entomogenous fungi attacking preserved dragonfly collections, also, discussed the various precautionary and control methods on such fungi.

The present note is the second report on the *fungi entomogeni* infesting the preserved dragonfly material, which also marks the end of our current investigations in this field.

OBSERVATIONS

In the present investigation were used some nine dragonfly species from which the following fungus material was recorded, altogether for the first time. The dragonfly material examined for the purpose are as follows, *Copera marginipes*, *Pseudagrion rubriceps*, *Ceragrion coromandelianum*, *Ischnura forcipata*, *Rhino-cypha quadrimaculata*, *Anisopleura lestoides*, *Brachythemis contaminata*, *Trithemis festiva* and *Trithemis pallidinervis*. Save for the last species, all the dragonfly material were male. The fungus species discovered on these dragonflies are, *Alternaria* sp., *Aspergillus flavus*, *Aspergillus nidulans*, *Coelomomyces* sp., *Entomophthora aphidis*, *Spicaria javanica*, and *Stemphylium* sp. Considering the entire amount of *fungi entomogeni* thus far known to the world, it seems worth mentioning here that no *Spicaria* sp. has ever been discovered from any insect previously and, therefore, its first record is only from a dragonfly.

Summing up our knowledge on the preponderance of all the fungus species hitherto

known to occur or attack dragonflies, whether dead, preserved or alive, it soon becomes evident that *Entomophthora* spp. are the most common fungi to infest their present hosts among which, also, the former has a good dispersal range. Generally, a single fungus species may be found on many different dragonflies while, at the same time, several species of fungi are apt to be obtained from the same individual belonging to any dragonfly species. This conclusion suggests that these fungi are not specific to any particular dragonfly host and can be found attacking any part of the dragonfly body.

This opinion regarding the general abundance of more than one fungus species on a solitary dragonfly host is in contrast to our previous view as mentioned in the former report (cf. Tyagi & Vijay Veer 1978), and which has now become certain as to the non-specificity of these fungi with respect to their host under discussion and that even several fungi can simultaneously infest one and the same insect, and vice versa.

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